First Extraordinary Session of 2015

Conference Committee on SB 4 and AB 3

Informational Hearing

California's Transportation Funding Challenge

Friday, October 16
State Capitol, Room 4202

BACKGROUND PAPER

Hearing Introduction

On June 16, Governor Brown proclaimed the need for an extraordinary session of the Legislature in order to consider and act upon legislation necessary to enact permanent, sustainable funding to adequately and responsibly maintain and repair the state's transportation and other critical infrastructure. On September 10, the Senate and Assembly non-concurred in SB 4 and AB 3, respectively, and established a conference committee to continue discussions on the transportation infrastructure funding issue.

On October 16, the conference committee will hold an informational hearing to discuss the challenges to funding the maintenance and rehabilitation of the state's road and highway system. In this hearing, the committee will first hear presentations on four funding proposals. The Legislative Analysts' Office will compare those proposals from the perspective of funding sources, expenditures, and related infrastructure development issues. Finally, a number of interested parties will comment on the four proposals.

Background

Overview of the Maintenance Problem

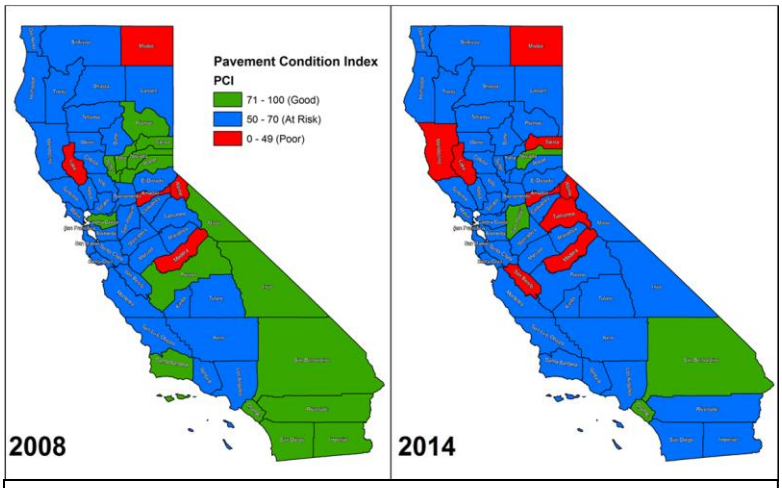

Figure 1. Condition of California's local streets and roads. On a scale of zero (failed) to 100 (excellent), the statewide average Pavement Condition Index (PCI) had deteriorated to 66 ("at risk") in 2014.

For a variety of reasons, state and local governments have been unable to properly fund the maintenance and rehabilitation of California's road system for decades. As a result, 68% of California's roads are in "poor" or "mediocre" condition, putting California behind 43 other states in road condition, according to the American Society of Civil Engineers. As demonstrated in Figure 1, 54 of California's 58 counties have an average pavement rating of "poor" or "at risk," with much of this deterioration occurring over the past six years. In addition, California has nearly 3,000 structurally deficient bridges in need of various levels of rehabilitation.

While people typically think of poor road conditions in terms of the impact on their own cars, the movement of people is only a part of the transportation puzzle. Also critical to California's economic well-being is the efficient movement of goods, both within the state and out of the state to the rest of the country and beyond, because it is directly linked to the state's ability to generate jobs and remain competitive. The Office of Freight Management at the Federal Highway Administration estimates that the amount of freight moved on California highways will more than double, from 971 million tons in 2002 to 2,179 million tons in 2035. This increased movement of goods will create more truck traffic, and these heavy trucks exact a greater toll on pavement and bridges than lighter weight vehicles. While good for the economy, this increasing truck traffic will also accelerate the deterioration of the transportation infrastructure.

According to the 2014 Update to the California Local Streets and Roads Needs Assessment, the statewide average pavement condition index is 66. Figure 2 illustrates where that condition registers in the general pavement lifecycle, as well as how quickly costs increase as pavement condition worsens. This figure, more than anything, describes the urgent problem California needs to solve.

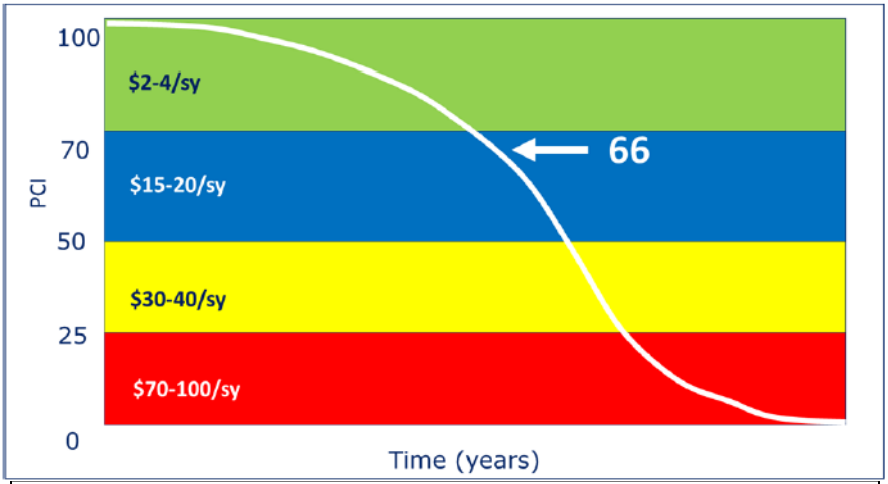

Figure 2. Generalized Pavement Life Cycle
PCI: Pavement Condition Index; sy: square yard

The heart of the problem is that overcoming funding deficiencies in regular road maintenance becomes increasingly challenging as the true cost of deferred maintenance compounds over time. Roads that are not properly maintained require more costly rehabilitation and reconstruction long before the projected end of their useful lives. These pavement rehabilitation and reconstruction projects are by far the most expensive type of maintenance projects. As Figure 2 demonstrates, major pavement rehabilitation, the type of project required when the condition index is below 50, averages at least 10 to 12 times the cost of preventative maintenance. With many of California's roads already in the "at risk" category, the state is poised at the precipice of a sharp decline in which maintenance costs increase dramatically over the life cycle of the pavement.

Some local transportation officials report that the inadequate funding levels have left them with an unwinnable choice: They have to decide whether to sink large portions of their maintenance budget into trying to reclaim portions of the system that have essentially failed, at the expense of proper preventative maintenance on better-off roads in their jurisdictions; or they can let the failed roads go and try to perform the necessary preventative maintenance on other roads to keep them from joining the list of failing infrastructure. Without more resources, this is

the decision more and more transportation officials will be forced to make as the system for which they are responsible crumbles around them.

Specific Needs

The following is a brief description of the identified needs related to the state highway system (SHS) as well as a discussion of identified needs on the local streets and roads systems.

State Highway System — California's SHS includes nearly 50,000 lane-miles of pavement and more than 13,000 bridges. Much of this system was built in the 1950s, 1960s, and early 1970s, and has reached or is reaching the end of its useful life. Based on the California Department of Transportation's (Caltrans) assessments of pavement conditions, only 59% of all state highway lane-miles are in good condition, while approximately 16% are very distressed and in need of major rehabilitation. The median age of state-owned bridges is 47 years old, and at least 550 of these bridges require major repair or rehabilitation.

According to the 2015 Ten-Year State Highway Operation and Protection Program (SHOPP) Plan, the total cost for the rehabilitation and operation of the SHS for the next 10 years is $80 billion, or an average annual cost of $8 billion (adjusted for inflation over time). Projected state funding available for the SHOPP is $2.3 billion a year, which covers roughly 25% of the estimated need. Over 10 years, this sums up to a $57 billion shortfall in revenues necessary for proper maintenance of the SHS, including roughly $30 billion in roadway preservation and $19 billion in bridge preservation and maintenance.

Local Streets and Roads — California's cities and counties own and maintain more than 143,000 centerline miles of local streets and roads. This road network incorporates 80% of the state's total publicly maintained centerline miles, and is valued at over $188 billion.

The table below shows the total funding shortfall for the local system of $78.3 billion over the next 10 years. For comparison, the results from previous needs assessments are also included.

	Needs ($B)			2014		
Transportation Asset	2008	2010	2012	Needs	Funding	Shortfall
Pavement	$ 67.6	$ 70.5	$ 72.4	$ 72.7	$ 16.6	$ (56.1)
Essential Components	$ 32.1	$ 29.0	$ 30.5	$ 31.0	$ 10.1	$ (20.9)
Bridges	-	$ 3.3	$ 4.3	$ 4.3	$ 3.0	$ (1.3)
Totals	$ 99.7	$102.8	$ 107.2	$ 108.0	$ 29.7	$ (78.3)

While bringing the state's local street and road systems up to a cost-effective best management practice level will require more funding now, investing in local streets and roads sooner will reduce the need for more spending in the future. To reach the appropriate level at which taxpayer money can be spent most cost-effectively will require an additional $56.1 billion for local streets and road pavements alone, or $78.3 billion total for a functioning local transportation system, over the next decade. In other words, to bring the local system back into a cost-effective condition, local transportation agencies need $7.8 billion annually in new funds.

Sources of Funding for Transportation

California's state and local transportation systems rely on funding from local, state, and federal sources.[1] Regional and local governments provide about half of the state's total transportation funding, and state and federal governments each provide about one quarter of the state's total transportation funding. Below we describe these three sources of funding in more detail.

Local Funding — Local sales tax measures and other funding sources such as local general funds, property taxes, and developer fees are the primary local sources of transportation funding, including for road maintenance and expansion. Twenty counties (known as self-help counties) have approved ballot measures that increase the local sales tax and dedicate the revenues to transportation programs. These measures are the largest source of revenue for transportation, requiring two-thirds local voter approval and generally lasting between 20 and 30 years.

[1] To be clear, this section is referring to sources of funding for all transportation in the state, including capacity-increasing projects and transit operations, not just road and highway maintenance.

State Funding — State funding for transportation comes primarily from revenues derived from taxes and fees. The three main state revenue sources are (1) the state gasoline and diesel excise taxes, (2) truck weight fees, and (3) the sales tax on diesel fuel. Because they are per-gallon rates that haven't changed since the early 1990s, revenues from the base fuel excise taxes have not kept up with costs as vehicles have become more fuel-efficient or use alternative energy sources not subject to state taxes. Because revenues from the fuel excise taxes are the bulk of what we use for our roads, these traditional funding sources have not kept pace with the demands of a growing population and an aging transportation system.

In addition, the state has funded transportation projects with general obligation bonds. The most recent transportation bond approved by the voters — the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B) — provided $19.9 billion for a variety of transportation projects. Very little of this funding, however, was dedicated to the maintenance of the system and was primarily used for highway expansion or transit. Most of this funding has been spent or is committed to ongoing projects and will be fully expended in the next few years as these projects are completed.

Federal Funding — The Highway Trust Fund, the source of most federal funding for the country's roads and transit infrastructure, has seen revenue fall short of expenditures for more than a decade. Drawing down trust fund balances and transferring money from the general fund have served as temporary fixes, but have not addressed the underlying issue of declining revenue from the federal fuel excise tax of 18.4 cents/gallon for gasoline and 24.4 cents/gallon for diesel fuel. The Congressional Budget Office projects that, absent reforms, trust fund shortfalls will grow to $162 billion over the next 10 years.

Roughly 98% of federal funding for surface transportation flows to state and local governments, mostly in the form of reimbursements for expenses already incurred. Because projects require significant planning and construction time, it is important state and local governments have some certainty and consistency in funding. Historically, this has been the reason federal funding was authorized over multiple years. However, the last full federal funding authorization (six years of funding) was passed more than a decade ago, and state and local governments have been operating under short-term funding extensions since then. It is

Some States Addressing Their Transportation Funding Problems

According to AASHTO, the following states have passed proposals related to transportation funding:

- Arizona
- Arkansas
- Connecticut
- Delaware
- DC
- Georgia
- Idaho
- Indiana
- Iowa
- Maryland
- Massachusetts
- Michigan
- Nebraska
- New Hampshire
- North Carolina
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Texas
- Utah
- Vermont
- Virginia
- Washington
- Wisconsin
- Wyoming

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unclear if Congress will develop a solution to this problem any time soon, and therefore it is unlikely the state can count on the federal government to help address its transportation funding problem.

What Are Some Solutions by Other States?

Given the lack of help from the federal government, states have increasingly begun to come up with their own plans for raising additional transportation revenue. The American Association of State Highway and Transportation Officials (AASHTO) lists more than 27 states that have already passed measures aimed at increasing funding for transportation. Collectively, these measures promise to generate billions of additional dollars for state and local transportation programs.

Increasing/Indexing the State Fuel Excise Tax — Since 2013, 12 states have increased their gas tax, including the states of Washington, Utah, South Dakota, Nebraska, Iowa, Idaho and Georgia this year. Both Maryland and Massachusetts recently indexed the state fuel excise tax to keep pace with inflation.

Replacing the Excise Tax with Sales Tax — Virginia replaced its 17.5 cents/gallon state excise tax on fuel, which had not been changed since 1987, with a new 3.5% wholesale tax on motor fuels. Additionally, Virginia raised the sales tax on nonfood merchandise from 5% to 5.3% and devoted a larger portion of existing revenue to

transportation. This plan is expected to raise about $880 million a year for transportation purposes.

Raising Vehicle Fees — Pennsylvania legislators have enacted tax and fee changes that will raise $2.3 billion annually for the state's transportation infrastructure: $1.65 billion for roads and bridges and $475 million for transit. The plan, approved in late 2013, eliminates the retail tax on gasoline, uncaps the wholesale gas tax, and raises various vehicle and driver fees over the next five years. Driver fees increased for identification cards, duplicate driver's licenses and ID cards, and titles. Pennsylvania also increased the one-time fee for vanity license plates to almost four times the previous cost and driver's license and annual vehicle registration fees by $1.

Instituting a Mileage-Based User Charge — Oregon has completed two pilot programs to test the feasibility of a road-usage charge based on vehicle miles traveled. Oregon's newest program will allow permanent enrollment of up to 5,000 vehicles that will be charged either by a simple device plugged into the vehicle to measure miles only, or a GPS device to report in- and out-of-state travel mileage. Washington is studying and testing concepts similar to Oregon's program. Oregon, Washington, and California are members of the Western Road Usage Charge Consortium, an 11-state research collective examining a per-mile or road-usage charge as a regional policy in the West. Elsewhere in the nation, Indiana, Wisconsin, Michigan, Illinois, Maine, Delaware, and Florida are studying or investigating per-mile charging for roads. With the passage of SB 1077 (DeSaulnier, Chapter 835, Statutes of 2014), California is working on implementing its own pilot program, to be completed in 2018.

A Variety of Options — Recent polling demonstrates that Californians are more supportive of small increases across a variety of fees as opposed to a larger increase in any single fee. Other states are looking into comprehensive packages as well. The Oregon House of Representatives introduced a bill that raises money through a series of tax and fee increases: a 4 cents/gallon increase in the gas tax; a new-vehicle title fee of $125; a $10 increase in the driver's license fee; a $10 increase in the vehicle registration fee; and a $135 increase in the registration fee for electric vehicles. If passed, Oregon's bill would raise over $200 million for state and local roads and $80 million for transit improvements.

Options for Addressing California's Backlog

There are a number of options for providing additional state funding for transportation projects in California. The table below summarizes the pros and cons of some key options, and each is discussed in more depth following the table.

Various Options for Increasing State Funding for Transportation Projects

Option	Pros	Cons
Increase fuel excise tax	Targets larger and less fuel-efficient vehicles. Cannot be taken for general fund relief.	Regressive, and revenue source diminishes over time.
Increase vehicle license fee (VLF)	Can be implemented statewide. Low administrative costs. Is relatively progressive, and tax deductible.	Paid once annually, could lead to sticker shock. Can be redirected for general fund relief.
Increase vehicle registration fee (VRF)	Can be implemented statewide. Low administrative costs. Cannot be taken for general fund relief.	Regressive, and is paid once annually.
Increase vehicle weight fees	Would better align costs that heavy trucks impose on roads with the amount paid.	Could have a somewhat negative economic impact. Can be redirected for general fund relief.
Lower the local voter threshold	Increases the likelihood of locals raising revenue to address their own needs.	Does not address the statewide needs. Amount of revenue generated uncertain.
Increase number of tolls/ road pricing	Can help address congestion in urban areas, and ties revenue to use.	Regressive and cannot be implemented statewide. Amount of revenue generated uncertain.
Sell transportation bonds	Provides funding for transportation projects, though typically not for maintenance of existing roads.	Does not generate ongoing new revenue and commits future revenues. Governor is not supportive of bonds.
Impose mileage-based charge	Can be implemented statewide, addresses increasing fuel efficiency of vehicles, and ties revenue to use.	The state is not ready to implement, with technology, privacy, and administrative issues left to resolve.
Index fuel excise tax to inflation	Is more sustainable, will ensure revenues keep up with costs. Could eliminate gas tax swap.	Will not resolve challenges of increased vehicle fuel efficiency. May be problematic in periods of high inflation.

Use general fund surpluses	Can increase resources for transportation without increasing taxes.	Takes away from existing programs. Not sustainable during economic downturns.
Use cap-and-trade revenues	Can increase resources for transportation without increasing taxes.	Unclear if use would be appropriate, or what nexus might justify fee revenues for road maintenance.
Apply savings from increased efficiencies	Can increase resources for transportation without increasing taxes.	Unclear what savings can be realized. Also may be difficult to do more with less.

Fuel Excise Tax — Some support increasing the state fuel excise tax to keep pace with inflation. The inflation-adjusted value of the base excise tax on gasoline, set at 18 cents in 1994, is only 10 cents today. Increasing and/or indexing the excise tax to inflation would help maintain the tax's purchasing power. One benefit of this tax is that the larger and less fuel-efficient vehicles that cause a disproportionate amount of road damage pay more taxes. In addition, revenues from this tax are constitutionally protected for transportation purposes and therefore could not be redirected for other uses. However, this tax is regressive and increasing the tax is likely to be politically challenging. Also, this tax does not proportionally account for the wear and tear caused by vehicles using the state transportation system that do not rely, or rely less heavily, on gasoline.

Vehicle License Fee — The state imposes an annual vehicle license fee (VLF) based on the estimated depreciated cost of each vehicle in lieu of a property tax. Since the state already collects this fee, the administrative costs to increase the VLF are low and it can easily be implemented statewide. In addition, this fee is tax-deductible on both federal and state income tax returns, reducing the fee's burden on vehicle owners who itemize deductions. An increase in the VLF could generate significant revenue — a 1.0% increase, to 1.65% of vehicle value, would generate roughly $3 billion in new revenue annually.[2] However, polling suggests that increasing the VLF, or "car tax," would be met with significant public resistance; the annual bill could also result in "sticker shock" for the public. This revenue stream is also not constitutionally protected for transportation uses, and could be redirected for other purposes.

[2] It should be noted that, from the 1930s until 1998, the VLF was 2.0% of vehicle value. The VLF has never been used for transportation purposes; in fact, the Constitution directs the existing revenues to primarily fund local social service and prison costs. Any increase in the VLF could be used for transportation purposes, however.

Vehicle Registration Fee — In addition to the VLF, the state annually collects a vehicle registration fee (VRF), which is a flat fee everyone pays in order to register their vehicles in the state of California. Because it is not a tax in lieu of a property tax, revenues from the VRF are constitutionally protected for transportation purposes and therefore could not be redirected for other uses. A $35 increase in the VRF generates roughly $1 billion in additional revenue. The fact that the VRF is the same amount regardless of the value of the vehicle, however, makes this a regressive tax. In addition, some argue that increasing this fee too much could create an economic barrier and discourage owners from registering their vehicles with the state.

Vehicle Weight Fees — Trucks and other commercial vehicles currently pay vehicle weight fees based on the estimated gross weight of the vehicle. Some argue that current weight fees are not proportionate to the costs that these heavy vehicles impose on the state's transportation system. An increase in the fees that trucks pay would likely receive opposition and potentially have a somewhat negative economic impact because it may increase the costs of goods and services. In addition, this revenue stream is not constitutionally protected for transportation uses, and could be redirected for other purposes.

Local Revenue Options — Advocates generally discuss two options for raising additional transportation revenues at the local level. First, state law allows counties to impose a sales tax for local transportation purposes when approved by a supermajority, or two-thirds of those voting. Some suggest the two-thirds threshold could be lowered to a simple majority, making it easier for local governments to pass these taxes. While these taxes can create a significant amount of new revenue for local transportation projects, they do not encourage fuel efficiency, are regressive, and don't help to comprehensively address the state's transportation needs.

Another option often discussed, which the Governor included in his proposed budget this year, is expanding the opportunity for local transportation agencies to build toll lanes. Toll roads can help to address congestion, especially in urban areas, and can result in the more efficient use of scarce resources (uncongested lanes) during peak travel periods. However, this approach does

not address issues of congestion throughout the state and would not generate enough revenue to maintain the state's existing transportation system.

Transportation Bonds — The state can sell bonds to finance transportation projects. However, this approach does not generate new revenues, and recently the state has dedicated existing transportation revenues to bond debt service. This approach also has the downside of not charging taxpayers proportionate to their use, or cost imposed on the system. Finally, the Governor has publicly discouraged the idea of increasing the state's debt burden for transportation purposes.

Mileage-Based Charge — A mileage-based user fee charges users of the system an amount that is proportionate to the amount they drive, generally based on vehicle miles traveled (VMT). Increasing revenues through this approach would address the declining use of fuel and the associated revenue decline. A VMT-based charge could be established to adjust for inflation so that the revenue generated maintains its purchasing power. An advantage of such a charge is that it can be implemented statewide. A recent report by the University of Southern California, Sol Price School of Public Policy, estimated that a 2.1-cents-per-mile VMT fee would raise enough revenue to replace the current state excise tax on gasoline. Before implementing a VMT-based charge, the state needs to do significant work to address privacy issues and obtain the public's support.

Indexing the Fuel Excise Tax to Inflation — Indexing the fuel excise tax rate to an inflation measure such as the Consumer Price Index (CPI) can help address the diminishing buying power of the excise tax because revenues would presumably grow with costs. It would not address the other factor undermining excise tax revenues, namely the increasing fuel efficiency of the state's vehicle fleet, and therefore is a short-term solution. In addition, it wouldn't raise additional revenue today, but it would slow down the diminishment of transportation resources. Opponents of indexing the gas tax to inflation claim that legislators should be involved in, and subsequently accountable for, the decision to raise taxes. In addition, opponents argue that indexing gas taxes to inflation tends to increase the tax quickest when the

consumer price index, and therefore gasoline prices, is rapidly increasing. Thus, higher gas prices will beget higher gas taxes, potentially undermining consumers' purchasing power.

General Fund Surpluses — The Legislature passed and the Governor signed the largest general fund budget in state history in 2015. Some argue that, instead of increasing expenditures for other general fund programs like health and human services or criminal justice, the Legislature should direct surpluses to transportation needs. Historically, the state has dedicated specific non-general fund revenues to transportation in order to avoid competing for funding with other programs that often appear more urgent or important. The multi-year nature of transportation needs makes it critical that funding streams are relatively stable and predictable. While there may have been surpluses in recent years, there will inevitably be future deficit years in the general fund, and it is unlikely transportation will remain the priority it is today.

Cap-and-Trade Revenues — The California Air Resources Board recently included fuels in its cap-and-trade program, which means that fuel suppliers must reduce greenhouse gas emissions by supplying low-carbon fuels or purchasing pollution permits to cover the greenhouse gases produced when the conventional petroleum-based fuel they supply is burned. Some argue that the revenue generated from the sales of these permits could be directed to address the state's road maintenance needs. That could prove difficult, however, because these revenues are regulatory fees and therefore require a nexus between the generation and expenditure of the money. While there are some who make a case for reduced greenhouse gas emissions from better maintained roads, it is not clear that the nexus is there. Potentially, some of the cap-and-trade funds could be allocated to transit or perhaps some goods movement projects that reduce the amount of stop-and-go traffic for heavy trucks. There is significant demand for cap-and-trade revenues, and, while important, it is not likely that transportation needs will rise to the top of the Legislature's or the Governor's priority list for these funds.

Savings from Increased Efficiencies — Relatively recent reports have suggested that the state could be more efficient in delivering transportation projects, and some have argued that savings from those efficiencies could be used to address road maintenance needs. One challenge to this approach is that, while there may be some room for improved efficiencies, even at the

most extreme this strategy would raise less than $1 billion annually and not come close to addressing the problem. Also, it seems that some of the effort to address the maintenance backlog will require more work, not less, and therefore it may be even more difficult to reduce staff at the same time that we increase funding and workload.

Conclusion

Clearly there is a need, and the Legislature should further consider options, for increasing the amount of funding available for transportation projects. The ultimate solution should include a number of options, as any one option may either be insufficient to make a meaningful difference or could be so burdensome as to do more harm than good. The conferees may wish to consider what options it will not consider, and how far they may be willing to go with others in order to narrow the focus of the effort.